REMARKS

The foregoing Preliminary Amendment is requested in order to delete the multiple dependent claims and avoid paying the multiple dependent claims fee.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

Early action on the merits is respectfully requested.

Respectfully submitted,

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Claims:

5   22.   A method for controlling an overactive bladder,
comprising the steps:
-        detecting nerve signals from nerves innervating
the bladder;
-        detecting a bladder event from the nerve sig-
10   nals;
-        generating electrical pulses in response to the
detected event;
-        stimulating afferent nerves using the generated
electrical pulses in order to inhibit detrusor contrac-
15   tion of the bladder.

23.   A method as defined in claim 22,   wherein the de-
tected nerve signals primarily come from afferents inner-
vating mechanoreceptors in the bladder wall.

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24.   A method as defined in claim 22,   wherein the de-
tected nerve signals come from efferent nerve fibres in-
nervating the bladder.

25   25.   A method as defined in claim 22,   wherein two dif-
ferent signals are used to detect a detrusor contraction,
the first signals coming from afferent nerves innervating
the bladder, and the second signals coming from efferent
nerves innervating the detrusor muscle.

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26.   A method as defined in claim 22,
wherein neural circuits inhibiting bladder contraction
are stimulated by activating an inhibitory spinal reflex

by stimulating afferent nerve fibres innervating mechano-
receptors located in the glans of the penis or clitoris.

27.   A method as defined in claim 26,   wherein a stimu-
lation electrode is located at a nerve belonging to the
group consisting of a dorsal penile/clitoris nerve, a pu-
dendal nerve, an extradural sacral nerve root or an in-
tradural dorsal sacral nerve root.

28.   A method as defined in claim 22,   wherein both a
detecting electrode and a stimulation electrode is lo-
cated at either the intradural dorsal sacral nerve roots
or the extradural sacral nerve root.

29.   A method as defined in claim 28,   wherein the dor-
sal sacral nerve roots belong to the group S2-S4.

30.   A method to estimate bladder volume, comprising
the steps:
-       detecting nerve signals from nerves innervating
the bladder;
-       estimate bladder volume in response to the de-
tected signals using signal-processing methods.

31.   A method as defined in claim 30,   wherein the
bladder volume is estimated from the amplitude of the de-
tected nerve signal.

32.   A method as defined in claim 30,   wherein the
bladder volume is estimated from the time between two de-
tected nerve signals derived from two consecutive detru-
sor contractions.

33.   A method as defined in claim 30   wherein the
bladder volume is estimated from both the amplitude of
the detected nerve signal and from the time between two
detected nerve signals derived from two consecutive de-
5   trusor contractions.

34.   A method as defined in claim 30,
comprising the further steps of: transmitting, from a
transmitter placed inside the body of a user, a signal
10   when a predetermined threshold is exceeded, receiving the
signal with a receiver placed outside the body of a user,
actuating an alert in response to the received signal for
alerting the user that a given threshold value for the
bladder volume has been reached.
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35.   An apparatus for estimating bladder volume, com-
prising:
-      sensor means for sensing nerve signals from
nerves innervating the bladder;
20   -   ˙ a unit capable of estimating bladder volume in
response to the detected signals using signal-processing
methods.

36.   A apparatus as defined in claim 35,   wherein the
25   unit is capable of deriving a bladder volume from the am-
plitude of the detected nerve signal.

37.   A apparatus as defined in claim 35,   wherein the
unit is capable of deriving a bladder volume from the
30   time between two detected nerve signals derived from two
consecutive detrusor contractions.

38. A apparatus as defined in claim 35,   wherein the
unit is capable of deriving a bladder volume from both
the amplitude of the detected nerve signal and from the
time between two detected nerve signals derived from two
5 consecutive detrusor contractions.

39. A apparatus as defined in claim 35,
     further comprising transmitting means, receiving
means and actuating means,
10 -   said transmitting means together with the unit
being capable of being placed inside the body of a user;
-         said receiving means, when placed outside the
body of a user, being capable of receiving a signal from
said transmitting means, when placed inside the body of a
15 user, and passing the signal to actuating means for
alerting the user that a given threshold value for the
bladder volume has been reached.